



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,458	02/02/2005	Takuya Matsumoto	2004-1077A	7569
513 7590 01/02/2008 WENDEROTH, LIND & PONACK, L.L.P. 2033 K STREET N. W. SUITE 800 WASHINGTON, DC 20006-1021			EXAMINER MCGRAW, TREVOR EDWIN	
			ART UNIT 3752	PAPER NUMBER
			MAIL DATE 01/02/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/501,458

Applicant(s)

MATSUMOTO, TAKUYA

Examiner

Trevor McGraw

Art Unit

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 16-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Examiner's Comment***

Examiner acknowledges the cancellation of Claims 1-15.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "air inlet", "air outlet" and "fluid channel" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "air inlet", "air outlet" and "fluid channel" is not supported within the specification and references to "air inlet", "air outlet" and "fluid channel" render the Claims indefinite.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 16, 20 and 24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed,

had possession of the claimed invention. Examiner cannot determine where the references to "air inlet", "air outlet" and "fluid channel" are disclosed within the substitute or originally submitted disclosures. As a result, the references to "air inlet", "air outlet" and "fluid channel" in Claim 16 constitute new matter.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regard to Claim 17, Examiner cannot ascertain the metes and bounds of Claim 17. Claim 17 depends from Claim 1. Applicant has cancelled claims 1-15 without prejudice and new Claim 17 depends from cancelled Claim 1. Thus, Claim 17 is rendered indefinite by depending from a cancelled claim. Claim 21 is also rendered indefinite as a result of depending from Claim 17.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 16-23 are rejected under 35 U.S.C. 102(a) as being anticipated by Schmon (DE10031857).

In regard to Claim 16, Schmon (DE 10031857) teaches a spray gun (1) for atomizing paint, the spray gun (1) having a spray gun body (1; Figure 1) with a coupling hole (see coupling hole at bottom of Figure 11), a pressure indication unit (27) that is detachably connected to the spray gun body so as to form at least part of the spray gun grip (1,2; The cover "38" of "27" is at least removably installed to the spray gun grip) where the pressure indication unit (27) defines an air inlet, an air outlet, and a fluid channel extending between the air inlet and air outlet. The air outlet is coupled to the coupling hole of the spray gun body (1; Figure 1).

A pressure transducer (signal converter) system is assembled in the pressure indication unit (27) that includes a pressure sensor (28) that communicates with the fluid channel (19) via an air passage (44) formed in the pressure indication unit (27), a digital converter (29) for converting a pressure detected by the pressure sensor (28) into an electrical signal, and a digital indicator (30) for providing digital indication of an output electrical signal from the digital converter (29; Column 4, lines 21-28; the circuit is inherently capable of converting the signal by cooperating with the pressure sensor "28" as "29" has corresponding circuits to send signals to the LCD screen "30"; Column 4, lines 26-28).

In regard to Claim 17, the digital converter (29) comprises a circuit board and the pressure sensor (28) has a pressure sensitive element (piezoelectric pressure sensor)

that is exposed to the fluid channel via the air passage (44), the pressure sensor (28), the circuit board (29) and the pressure indicator (27) are integrally connected to form a pressure indication module (27, 28, 29). The pressure indication module (27, 28, 29) include power terminals (34) connected to the circuit board (29) and the pressure indication module (27, 28, 29) is formed by molding an insulative resin such that only the power terminals (34) and the pressure sensitive element (piezoelectric pressure sensor) are exposed outside of the pressure indication module (27, 28, 29; pressure indication module is exposed when the cover "38" is removed from the handle).

In regard to Claim 18, Schmon teaches a spray gun having a pressure indication module (27) having a pressure transducer including a pressure sensor (28), a digital converter which converts a pressure detection output from the pressure sensor into an electrical signal by an analog to digital converter to provide an output signal for digital indication. The pressure sensor (28) has a pressure sensitive element that is exposed to the fluid passage via an air passage, the pressure indication module includes power terminals connected to the circuit board, the pressure indication module is formed by molding an insulative resin such that only the power terminals and the pressure sensitive element are exposed outside of the pressure indication module and the operation unit is connected to the power terminals which are exposed outside of the pressure indication module.

With regard to Claim 19, Schmon further teaches where the spray gun is inherently an automatic spray gun that is operable with a supply of pre-adjusted compressed air.

With regard to Claim 20-23, Schmon additionally teaches where the power unit (42) connected to the power terminals (34), and the pressure transducer (signal converter; piezoelectric pressure sensor) is isolated from outside of the spray gun (1) by a sealing means (39).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmon (DE 10031857).

In regard to Claim 24 Schmon as taught and described above teaches that the pressure indication unit (27) is integrated into the handle of the spray gun body (1; Column 4, line 14-15), a compressed air coupling and a compressed air outlet for coupling to a compressed air channel in the spray gun body (1; Figure 1 next to lower portion of cross section line C-C where the coupling is shown going into 19. The inlet comes from the pressurized source of compressed air and exits into 19 through the coupling outlet; See also Figure 4) but fails to teach where the pressure transducer or pressure indication unit (27; Pressure sensor "28", circuit board column 4, lines 21-23, digital indicator "30" are formed integrally and can be uninstalled from the spray gun) is



embodied as a detachable module that incorporates the pressure transducer (27) as a major piece of the handle grip.

It would have been obvious to one having ordinary skill in the art at the time the present invention was made to make the pressure transducer (27) as taught by Schmon removable from the spray gun (1), as constructing a formerly integral structure into various or separate elements involves only routine skill in the art. Making the pressure transducer (27) removable from the spray gun body (1) is ideal in the art whereas in the event of a pressure transducer malfunction or poor operating status, only the module would have to be replaced in lieu of an entire spray gun where the pressure transducer system cannot be removed from the gun.

### ***Response to Arguments***

#### **Objection to Drawings**

Applicant's arguments, see page 8, filed 09/28/2007, with respect to the objection to the drawings have been fully considered. The objection to the drawings has been withdrawn in view of Applicant's cancellation of the references to the "A-D converter" limitation.

#### **Objection to Specification**

Applicant's arguments, see page 8, filed 09/28/2007, with respect to the objection to the specification have been fully considered. The objection to the specification has been withdrawn in view of Applicant's cancellation of the references to the "A-D converter" limitation within the Claims.

**Rejection under 35 USC § 112**

Applicant's arguments, see pages 8-9, filed 09/28/2007, with respect to Claims 3, 4, 7, 8, 10 and 11 have been fully considered. The rejection of Claims 3, 4, 7, 8, 10 and 11 held under 35 USC § 112 Second Paragraph has been withdrawn in view of Applicant's cancellation of Claims 3, 4, 7, 8, 10 and 11.

**Rejection under 35 USC § 102**

Applicant's arguments, see pages 9-13, filed 09/28/2007, with respect to Claims 1, 4-7 and 9-15 have been fully considered and are persuasive. The rejection of Claims 1, 4-7 and 9-15 has been withdrawn in view of Applicant's cancellation of Claims 1-15.

**Rejection under 35 USC § 103**

Applicant's arguments, see pages 9-13, filed 09/28/2007, with respect to Claims 2, 3, 6, 8 and 9 have been fully considered and are persuasive. The rejection of Claims 2, 3, 6, 8 and 9 has been withdrawn in view of Applicant's cancellation of Claims 1-15.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

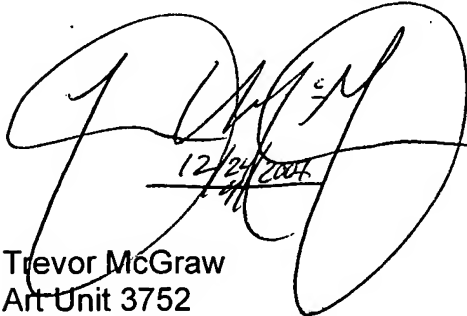
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trevor McGraw whose telephone number is (571) 272-7375. The examiner can normally be reached on Monday-Friday (2nd & 4th Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:  
10/501,458  
Art Unit: 3752

Page 11

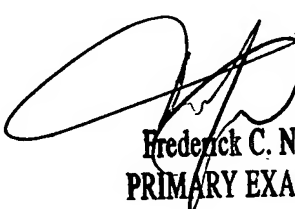
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



12/24/2004

Trevor McGraw  
Art Unit 3752

TEM



12/26/07

Frederick C. Nicolas  
PRIMARY EXAMINER